EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	71	(comfort adj noise) and (signal adj attenuat$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 08:52
L2	32	(comfort adj noise) and (signal adj attenuat$3) and IP	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:02
L3	18	((voice and over and IP) or voip).ti. and ((comfort adj noise) or SID) and (noise)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:11
L4	35	((background or comfort) adj (noise)) same priority same output	US-PGPUB; USPAT; USOCR	OR	ON	2007/01/17 09:11
L5	15	((background or comfort) adj noise).ti. and SID and (speaker)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:17
L7	32	(push adj to adj talk) and (@rlad<"20011231" or @ad<"20011231")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:19
L8	29	(speakerphone and (SID or (silence adj indicator))) and (@rlad<"20011231" or @ad<"20011231")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:26
L9	6	(push adj to adj talk) and speaker$8 and (@rlad<"20011231" or @ad<"20011231")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 09:38
L10	87	(half adj duplex) same (attenuat$3) same transmit$4	US-PGPUB; USPAT; USOCR	OR	ON	2007/01/17 09:55

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L11	95	(echo and signal and mask$4).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 10:04
L13	1	(echo and signal and mask$4 and priorit$7).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 10:01
L14	66	(status and signal and speaker and phone).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 10:05
L17	7	(echo and signal and mask$4 and attenuat$7).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/17 10:04

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Scholar **All articles** Recent articles Results **1 - 64** of **64** for **notice echo attenuation OR attenuation "com**

All Results
E Romesburg
Ericsson Inc.
D Abebe
J Rasmusson
F Isen

Compressed domain noise reduction and **echo** suppression for networkspeech enhancement
R Chandran, DJ Marchok, TR Center, IN Mishawaka - Circuits and Systems, 2000. Proceedings of the 43rd IEEE ..., 2000 - ieeexplore.ieee.org
Page 1. Compressed Domain Noise Reduction and **Echo** Suppression ... After perForming **echo** caudation and noise dudion, the speed^ is re- ...
Cited by 4 - Related Articles - Web Search - BL Direct

Method and apparatus for cancelling **echo** originating from a mobile terminal - group of 3 »
T Trump - US Patent 6,256,384, 2001 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this patent is ... **Comfort noise** generator ... FIR filter 26 is optional, because the **echo attenuation** by linear ...
Cited by 4 - Related Articles - Web Search

Methods and apparatus for improved **echo** suppression in communications systems - group of 3 »
ED Romesburg, JAJ Rasmusson - US Patent 6,160,886, 2000 - Google Patents
... 130 to determine the additional **attenuation** needed to ... has been disconnected when the **echo** suppressor 130 ... user, today's systems often add **comfort noise** to the ...
Cited by 22 - Related Articles - Web Search

Methods and apparatus for providing **comfort noise** in communications systems - group of 3 »
ED Romesburg, LS Bloebaum, CNS Guruparan - US Patent 6,163,608, 2000 - Google Patents
... the noise attenuated by the non-linear **echo** suppres -sor ... 2Acan be substituted for the y **attenuation** block 280 ... audio signal 135 and the **comfort noise** samples 265 ...
Cited by 14 - Related Articles - Web Search

Methods and apparatus for providing **echo** suppression using frequency domain nonlinear processing - group of 3 »
P Srqvist, A Eriksson - US Patent 6,658,107, 2003 - Google Patents
... **Notice**: Subject to any disclaimer, the term ofthis ... the **echo** suppressed and **comfort noise** enhanced output ... and furthermore, the level of **echo attenuation** may not ...
Cited by 2 - Related Articles - Web Search

Methods and apparatus for controlling **echo** suppression in communications systems - group of 3 »
ED Romesburg - US Patent 6,148,078, 2000 - Google Patents
... The **echo** suppressor 130 then provides additional **echo attenuation** as necessary, and **comfort noise** is optionally added via the summing device 150 to compen- 60 ...
Cited by 8 - Related Articles - Web Search

Mobile crosstalk control—Enhancing speech quality in digital cellular networks - group of 2 »
A Eriksson, M Eriksson, T Trump, TV Hulth - Ericsson Review, 1998 - ericsson.com
... condi- tions users can still **notice echo** that origi ... When the algorithm activates

attenuation, the **comfort noise** ... level settings—the level of **echo** depends on ...
Cited by 1 - Related Articles - View as HTML - Web Search

Desired voice detection in **echo** suppression - group of 3 »
ED Romesburg - US Patent 6,507,653, 2003 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this patent is ... circuit operates the NLP in an **echo**-voice mode having substantial signal **attenuation**. ...
Cited by 6 - Related Articles - Web Search

Sig - group of 3 »
AFDAE Canceller, P Eneroth, T Gansler - tde.lth.se
... major speech detection errors, resulting in **attenuation** of actual ... This residual **echo** can then be removed by ... decorrelator, studied in Chapter 4. **Notice** that the ...
Related Articles - View as HTML - Web Search

Controlling **attenuation** during **echo** suppression - group of 2 »
DL Barron, WC Yip, SS You - US Patent 7,065,207, 2006 - Google Patents
... **Notice**: Subject to any disclaimer, the term ofthis patent is ... signal; and wherein a is the **attenuation** factor ... The **echo** cancellation system ofclaim 18 wherein the ...
Related Articles - Web Search

Double talk, NLP and **comfort noise** - group of 2 »
Y Zhang, B Kosanovic - US Patent 7,050,576, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... The present invention teaches the **attenuation** of state ... is faded instead ofclipped and **echo** leak is ...
Related Articles - Web Search

Integrated noise cancellation and residual **echo** suppression - group of 4 »
DA Cairns - US Patent 7,027,591, 2006 - Google Patents
... **Notice**: Subject to any disclaimer, the term ofthis patent is ... then adds **comfort noise** to residual **echo** suppressed signal ... 58 may depend on the **attenuation** of RES ...
Related Articles - Web Search

Exponential **echo** and noise reduction in silence intervals
HJ Matt, M Walker, M Maurer - US Patent 6,999,920, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this ... constant noise level, a noise **attenuation** is also ... at the instants when additional **echo** reduction takes ...
Web Search

Noise-level adaptive residual **echo** suppressor - group of 3 »
W Dehandschutter - US Patent 6,959,167, 2005 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of ... operation of a **Comfort Noise** Generator (CNG) at the ... and the achieved residual **echo attenuation** is larger ...
Related Articles - Web Search

Echo cancellation in digital data transmission system - group of 3 »
O Kirla - US Patent 6,816,592, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or ... **echo** estimate y'(n-Ts) and thus the **attenuation** achieved for the **echo** signal y ...
Related Articles - Web Search

Echo and soft VoIP PBX systems
D Mandelstam - Linux Journal, 2005 - portal.acm.org
... The use of **attenuation** to eliminate **echo** was not ... The first thing to **notice** is the **echo** does ... In higher-performance **echo** cancellers, the nonlinear processor then ...
Web Search

Perceptual Acoustic **Echo** Suppressor for Audio Communication over Packet Networks
M Technologies - doi.ieeecomputersociety.org
... compromise was with a maximum of -3dB dynamic **attenuation**. ... We **notice** that in some
highly non-linear **echo** ... in double talk situation to remove the near-end **echo**. ...
Related Articles - Web Search

Full-duplex hands-free transparency circuit and method therefor - group of 3 »
JB Piket, CW Springfield, WC Yip - US Patent 6,799,062, 2004 - Google Patents
... tional loss needed to mask any remaining residual **echo**. Additional loss is applied in **attenuation** stages provided ... range, a listener does not **notice**, or object ...
Related Articles - Web Search

System and method for **comfort noise** generation - group of 2 »
W Tian, Y Lu - US Patent 6,766,020, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... the **echo** estimate and subtract the **echo** estimate from ... In other words, no **attenuation** or synthesizing is ...
Related Articles - Web Search

RANDOM_STOP_COUNT - group of 2 »
US Patent 7,103,014 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent ... Generally, increasing the **attenuation** ofswitch 201 improves the **echo** suppressionbut worsens ...
Web Search

Method and apparatus for **echo** estimation and suppression - group of 3 »
A Eriksson - US Patent 6,466,666, 2002 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this ... is represented by the **echo** path **attenuation** ERL (ERL ... station and is passed through **echo** suppressor 40 ...
Cited by 3 - Related Articles - Web Search

Method and apparatus for network speech enhancement - group of 3 »
W Etter, CS Chuang - US Patent 6,760,435, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... signal is then supplied to **echo** controller22 which includes a center **attenuation** calculator 82 ...
Related Articles - Web Search

Acoustic **echo** canceller - group of 6 »
WS Lee - US Patent 7,031,269, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is ... signal to specify the replacement ofthe **echo** residual signal by **comfort noise**. ...
Cited by 6 - Related Articles - Web Search

Echo suppression using adaptive gain based on residual **echo** energy - group of 4 »
ED Romesburg, MR Arana-Manzano - US Patent 6,622,030, 2003 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is ... 204, control logic 206, a residual **echo** suppressor 208, and a **comfort noise** unit 210. ...
Cited by 2 - Related Articles - Web Search

Echo canceller in a communication system at a terminal
P Scalart, G Le Tourneur, F Bouteille, C Beaugeant - US Patent 7,023,986, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... signal, from the esti -mated **echo** signal, from ... According to the invention, this **attenuation** is partly ...

Related Articles - Web Search

Full duplex **echo** cancelling circuit - group of 2 »
SM Domer, SL Thomasson - US Patent 6,904,146, 2005 - Google Patents
... Technology, Inc., Mesa, AZ (US) (*) **Notice**: Subject to any ... control circuit includ -ing **attenuation** controller 25 ... The **echo** canceller has three operating states. ...
Related Articles - Web Search

Protecting an **echo** canceller against random transitions in **echo** paths - group of 3 »
M Tahernezhaadi - US Patent 6,836,547, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or ... The ERLE represents the amount of **attenuation** added to the 35 **echo** as a result ...
Cited by 1 - Related Articles - Web Search

[DOC] 1. Management Summary
T Source - etsi.org
... **NOTICE**, The author of this document declares ... convergence characteristics, spectral **echo attenuation**, NLP implementation; ... or the design of **comfort noise** injection. ...
Related Articles - View as HTML - Web Search

4 thETSI Speech Quality Test Event (2005-08) - group of 2 »
QA STQ - etsi.org
... Important **notice** ... **comfort noise** generation at the receiving side ... parameter like the codec performance under 5% packet loss, the **echo attenuation** under single ...
Related Articles - View as HTML - Web Search

Anonymized Test Report - group of 2 »
E Plugtests, H acoustics GmbH - etsi.org
... **Notice**: • The author of this document declares that ... well as VAD- and **comfort noise** implementa- tions. ... talk and specifically the **echo** canceller characteristics ...
Related Articles - View as HTML - Web Search

Digital adaptive filter and acoustic **echo** canceller using the same - group of 3 »
W Armbrüster - US Patent 6,842,516, 2005 - Google Patents
... (54) DIGITALADAPTIVE FILTER AND ACOUSTIC **ECHO** CANCELLER USING ... (*) **Notice**: Subject
to any disclaimer, the term oithis patent is extended or adjusted under 35 ...
Related Articles - Web Search

ITU-Tp. 340
T INSTALLATIONS, L LINE - kaynam.com
... As of the date of approval of this Recommendation, ITU had not received **notice** of intellectual ... AEC Acoustic **echo** canceller ... a H Insertion **attenuation** range (dB) ...
View as HTML - Web Search

Method and processor in a telecommunication system - group of 3 »
E Walles - US Patent 6,940,829, 2005 - Google Patents
... Assignee: **Notice**: Appi. No. ... **Comfort noise** is added as produced in **comfort noise** generator 106. ... canceller is the part that secures a good **echo attenuation** ...
Related Articles - Web Search

Noise reduction circuit for telephones - group of 2 »
SL Thomasson - US Patent 6,798,881, 2004 - Google Patents
... (*) **Notice**: This patent issued on a continued pros -ecution ... as yet, no signal from

echo canceling circuit ... 174, which is initially set to minimum **attenuation**. ...
Cited by 1 - Related Articles - Web Search

A White Paper on Sage's PVIT - group of 4 »
R Dai - sageinst.com
... or the call is disconnected (dropped) or the **attenuation** is too ... can be measured through Sage's **Echo** Sounder test ... **Notice** that the relation shown here is only ...
Related Articles - View as HTML - Web Search

[BOOK] Stereophonic acoustic **echo** cancellation: theory and implementation
P Eneroth - es.lth.se
... **echo** signal. This delay in com- bination with low **echo attenuation** reduces the perceptual quality of the system. For- tunately, the ...
Cited by 3 - Related Articles - Web Search

Echo cancellation device for cancelling echos in a transceiver unit - group of 3 »
U Lindgren, M Misra, J Philipsson - US Patent 6,597,787, 2003 - Google Patents
... **ECHO** CANCELLATION DEVICE FOR CANCELLING ECHOS IN A TRANSCEIVER UNIT Inventors: Assignee:
Notice: 6,163,609 A * 12/2000 6,185,300 BI * 2/2001 Makinen et al. ...
Cited by 8 - Related Articles - Web Search

Enhancement of near-end voice signals in an **echo** suppression system - group of 2 »
N Christensson, J Philipsson - US Patent 6,510,224, 2003 - Google Patents
... **Notice**: Subject to any disclaimer, the term of this ... may also be employed to control an **attenuation** factor of an active acoustic **echo** canceler based on ...
Cited by 2 - Related Articles - Web Search

A White Paper on SMOS - group of 4 »
R Dai - Sage Instruments white papers, November, 2001 - sageinst.com
... band modem (such as fax) and network **echo** cancellers ... to 3400 Hz) signal level change
(**attenuation** or gain ... **Notice** that the gain is measured and integrated across ...
Related Articles - View as HTML - Web Search

[BOOK] French Dictionary of Information Technology: French/English, English/French - group of 2 »
TR Pyper - 1989 - books.google.com
... de la bande latérale sideband attenua -tion; ~ de la bande passante band-pass **attenuation**; band-pass loss; ~ de l'**écho echo attenuation**; active return loss ...
Web Search - Library Search

Speech Processing, Transmission and Quality Aspects (STQ); Specification and measurement of speech ... - group of 2 »
E Guide - webapp.etsi.org
... 88 Important **notice** Individual copies of the present document can be downloaded from: http://www.etsi.org ... 22 6.2.3.2 **Echo** control ...
Related Articles - Web Search

Telephone having four VAD circuits - group of 3 »
SM Domer, KM Vanda - US Patent 6,754,337, 2004 - Google Patents
... (*) **Notice**: Subject to an patent is extf USC 154(b ... is, as yet, no signal from **echo** cancelling circuit ... are initially set to minimum **attenuation**, as illustrated ...
Cited by 1 - Related Articles - Web Search

An Evaluation of Selected Communications Assemblies and Hearing Protection Systems: A Field Study ... - group of 4 »
A Scharine, P Henry, M Binseel - 2004 - stinet.dtic.mil
... DESTRUCTION **NOTICE** Destroy this report when it is no ... Oscar X-ray Four **Echo** Papa Yankee ... Ranking **Comfort Noise Attenuation** Speech Intelligibility Overall Rank ...
Cited by 1 - Related Articles - View as HTML - Web Search

[BOOK] VoIP Service Quality: Measuring and Evaluating Packet-switched Voice
WC Hardy - 2003 - books.google.com
... 28 **Echo** 29 ... **Notice**, then, that if we fail to distinguish between the variety of commonly understood meanings of the term QoS, we might assert, without fear ...
Cited by 9 - Related Articles - Web Search

Analog voice activity detector for telephone - group of 3 »
JL Allen, SM Domer - US Patent 6,847,930, 2005 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ol this ... are initially set to minimum **attenuation**, as illustrated ... cancelling is applied when there is no **echo**. ...
Related Articles - Web Search

Noise suppression - group of 3 »
VV Mattila, E Paajanen, A Vhtalo - US Patent 6,810,273, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or adjusted under 35 USC 154(b) by 476 days. (21) Appi. ...
Related Articles - Web Search

Universal telephony tones detector - group of 3 »
J Ahmad - US Patent 6,868,116, 2005 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is ... from R out to S,-„ is the **echo** return loss (ERL). The **attenuation** due to cancellation from ...
Related Articles - Web Search

Method and communication device for optimizing **echo** cancellation - group of 3 »
W Song - US Patent 6,678,254, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or adjusted under 35 USC 154(b) by 0 ... The **attenuation** of the **echo** (in decibels ...
Related Articles - Web Search

Continuity of voice carried over DSL during power failure - group of 2 »
AD Wallace, C Tate, M Bridger - US Patent 6,647,117, 2003 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... effects of dispersion, noise and **attenuation** along the ... **echo** cancellation ofthe local **echo** introduced by ...
Cited by 4 - Related Articles - Web Search

[BOOK] Noise Reduction in Speech Applications - group of 4 »
GM Davis - 2002 - books.google.com
... The fee is sobject to change without **notice**. ... cepstral mean normalization CNG **comfort noise** generator COTS ... elementary perceived qualities ERL **echo** return loss ...
Cited by 10 - Related Articles - Web Search - Library Search

Discrete Systems and Signal Spaces
PCM PCM - doi.wiley.com
... b) A sinusoidal pulse, ampli$cation by factor A = 2, and **attenuation** by factor ... y(n) = x(n − k), then H(Gx) ≠ G(Hx) for all x unless k = 0. **Notice** also that ...
Related Articles - Web Search

Detection of the speech activity of a source - group of 2 »
P Valve, J Hkkinen - US Patent 6,707,910, 2004 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis ... detection at the source ofmere **echo** (no near-end ... If the direction **attenuation** operates sufficiently well ...
Related Articles - Web Search

ARIB STD-T64 C S0052-0 v1. 0 Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB ...
SC Variable-Rate - arib.or.jp
... Refer to "**Notice**" in the preface of ARIB STD-T64 for ... 3GPP TS 26.192, AMR Wideband Speech Codec; **Comfort Noise** Aspects, March ... 24 36 3.1.1.3.3 **Echo** Return Loss ...
Related Articles - View as HTML - Web Search

I High Performance Modems for Plain Old Telephone Service (POTS) I Remote Access Server (RAS) Modems ... - group of 6 »
IGSMHU SoftFone, B Processor, IAC Basestations - analog.com
... modems make use of digital techniques to perform such functions as modulation, demodulation, error detection and correction, equalization, and **echo** cancellation ...
Related Articles - View as HTML - Web Search

Integrated adjustable short-haul/long-haul time domain reflectometry - group of 3 »
N Kaburlasos, J Little, V Nikhade - US Patent 6,862,546, 2005 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ... switching, voice compression, **echo** canceling, **comfort** ... functionality 424, jitter **attenuation** functionality 426 ...
Related Articles - Web Search

Method and apparatus for non-linear processing of an audio signal - group of 3 »
PP He, RA Smith, LFC Pessoa, RA Dyba - US Patent 7,016,488, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this patent is extended or ... USE ADAPTIVE FILTER TO GENERATE AN **ECHO** ESTIMATION SIGNAL ... GENERATE **COMFORT NOISE** ...
Related Articles - Web Search

Method and apparatus for performing adaptive filtering - group of 2 »
LFC Pessoa, RA Dyba, PP He - US Patent 6,961,423, 2005 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or ... USE ADAPTIVE FILTER TO GENERATE AN **ECHO** ESTIMATION SIGNAL ... GENERATE **COMFORT NOISE** ...
Related Articles - Web Search

Dynamic balance control for telephone - group of 2 »
JR Mikesell, FH Story - US Patent 6,990,194, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term of this patent is extended or ... A wide band or system VAD monitors **echo** canceling circuitry to detect voice ...
Related Articles - Web Search

Building Residential VoIP Gateways: A Tutorial
T Chan, D Greenstreet, G Yancey - Texas Instruments, VoIP Business Unit - focus.ti.com
... received voice and/or **comfort noise** samples until ... Mitigation requires robust **echo** cancellation solutions ... Background noise • Signal **attenuation**/gain changes ...
Cited by 2 - Related Articles - View as HTML - Web Search

Digital Cellular Phone: A Functional Analysis - group of 10 »

A Report - www-s.ti.com
... SPRA134 October 1994 Printed on Recycled Paper Page 2. IMPORTANT **NOTICE** Texas Instruments (TI) reserves the right to make changes ...
Related Articles - View as HTML - Web Search

[BOOK] Fundamentals of Voice Quality Engineering in Wireless Networks - group of 4 »
A Perry - 2006 - books.google.com
... GL-Communications, GL-Comm **echo** canceller testing solutions, www.gl.com ... Telecommunications System (Phase 2+); Full Rate Speech; **Comfort Noise** Aspectfor ...
Related Articles - Web Search - Library Search

Applications With the - group of 7 »
T DSPs - saturn.uni-mb.si
... to its products or to discontinue any semiconductor product or service without **notice**, and advises ... Digital Voice **Echo** Canceler Implementation on the TMS320C5x ...
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Voice gateway with downstream voice synchronization - group of 3 »
TF Rabenko, D Hartman, JCH Thi - US Patent 7,023,868, 2006 - Google Patents
... (*) **Notice**: Subject to any disclaimer, the term ofthis patent is extended or adjusted under 35 USC 154(b) by 1 110 days. (21) Appl. No.: 09/737,175 ...
Related Articles - Web Search

PatentView/EP1347660
S Parent, S Changes, G Info - gauss.ffii.org
EP1347660 Xircom wireless inc (US): Pcs pocket phone/microcell communication over-air protocol Pcs-taschentelefon/mikrozellen funkübertragungsprotokoll Protocole ...
Cached - Web Search

notice echo attenuation OR attenuat Search

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Display Sets

Search History

Database Details

Set	Term Searched	Items	
S1	(COMFORT AND NOISE AND ATTENUAT?)	143	Display
S2	COMFORT AND NOISE AND ATTENUAT? AND PY<=2001	108	Display
S3	RD (unique items)	75	Display
S4	3 AND NOTICE	1376	Display
S5	3 AND NOTICE	1376	Display
S6	2 AND NOTICE	1855	Display
S7	S2 AND NOTICE	0	Display
S8	S2 AND SIGNAL	14	Display

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2: Inspec (1898-present)

Bluesheet Rates

Fields Formats Sorts Limits Tags

Dialog eLink: USPTO Full Text Retrieval Options open url

8/9/1 (Item 1 from file: 2)
08087931 **INSPEC Abstract Number:** A2001-24-4350-007, C2001-12-3395-004
Title: Testing of ANR (active noise reduction) headsets
Author Behar, A.
Author Affiliation: IBBME, Toronto Univ., Ont., Canada
Journal: Canadian Acoustics **Conference Title:** Can. Acoust. (Canada) vol.29, no.3 p. 52-5
Publisher: Canadian Acoust. Assoc ,
Publication Date: Sept. 2001 **Country of Publication:** Canada
CODEN: CAACDX **ISSN:** 0711-6659
SICI: 0711-6659(200109)29:3L.52:TANR;1-4
Material Identity Number: B883-2001-004
Conference Title: Acoustics Week in Canada
Conference Date: 2001 **Conference Location:** Alliston, Ont., Canada

Language: English **Document Type:** Conference Paper (PA); Journal Paper (JP)
Treatment: Practical (P)
Abstract: ANR is a technique by which a signal of equal characteristics but with opposite phase is injected to neutralize the original one. Although patented in the early 30th, it was only in 1957 that it was adapted to earmuffs. And it was only in the last 20 or so years that the technique started to be applied outside of the research labs for practical applications. The main advantage of the use of ANR headsets is the increase of the attenuation at frequencies below 1 KHz. There is no significant reduction of the risk of hearing losses at these frequencies. However, due to the forward masking phenomenon, a reduction of the sound level at low frequencies results in an improvement in intelligibility and the consequent ease in oral communications. Therefore, the two main applications of those headsets is in communications and in comfort. A typical ANR includes a microphones, processor and speakers under each of the cups. A communication headset also includes means to inject the audio signal and a noise excluding microphone. The "comfort" headset, found mainly in executive classes of airlines does not include these means. There are two main characteristics that can be measured in an ANR headset. They are the attenuation of different frequencies and the intelligibility as perceived by the wearer under different circumstances (types of noise and sound levels). Although testing of those characteristics is something manufacturers as well as authorities are interested in, there are still no test methods standardized or even recognized. Right now, in Canada, researches are underway (at the DCIEM and the NRC among others) trying to design a testing protocol that could be universally accepted. The Sensory Communications group at the University of Toronto is presently studying a method that uses an Acoustical Test Fixture (ATF or Artificial Head) and allows for the measurement of Insertion Loss (IL). The attenuation could be, eventually calculated using the IL values. At the present, we are interested in the repeatability from consecutive measurements on the same protector, between protectors of the same type, as well as comparison between protectors of different types and from different manufacturers. (0 Refs)
Subfile: A C
Descriptors: active noise control; ear protection
Identifiers: active noise reduction headsets; ANR headsets; earmuffs; hearing losses; forward masking phenomenon; intelligibility; oral communications; communication headset; attenuation; testing protocol; Insertion Loss
Class Codes: A4350 (Acoustic noise, its effects and control); A8734 (Audition); A4360 (Acoustic signal processing); C3395 (Other applications of control); C3120Z (Other nonelectric variables control)

8/9/2 (Item 2 from file: 2)
06800303 **INSPEC Abstract Number:** B9802-6210D-012
Title: An improved echo shaping algorithm for acoustic echo control
Author Martin, R.; Gustafsson, S.
Author Affiliation: IND, Tech. Hochschule Aachen, Germany
Conference Title: Signal Processing VIII, Theories and Applications. Proceedings of EUSIPCO-96, Eighth European Signal Processing Conference **Part** vol.1 p. 25-8 vol.1
Editor(s): Ramponi, G.; Sicuranza, G.L.; Carrato, S.; Marsi, S.
Publisher: Edizioni LINT Trieste , Trieste, Italy
Publication Date: 1996 **Country of Publication:** Italy 3 vol. lxiii+2144 pp.
ISBN: 88 86179 83 9 **Material Identity Number:** XX96-02176
Conference Title: Proceedings EUSIPCO-96, VII European Signal Processing Conference
Conference Date: 10-13 Sept. 1996 **Conference Location:** Trieste, Italy
Availability: Giovanni L Sicuranza, DEEI, University of Trieste, 34100 Trieste, Italy

Language: English **Document Type:** Conference Paper (PA)
Treatment: Practical (P); Theoretical (T)
Abstract: This paper describes and analyses an improved algorithm for hands-free telephony which uses an acoustic echo canceller combined with an additional FIR-filter (called the "echo shaping filter") in the sending path of hands-free telephones. The algorithm controlling the filter is based on an approximation of an optimal least squares filter. Simulation results show that the algorithm allows a significant reduction in the order of the echo canceller, while still providing high echo attenuation and low distortion of the near end speech signal during double talk. The modulation of the background noise caused by the echo shaping filter can be reduced by adding artificially generated noise to the output signal "comfort noise". (8 Refs)
Subfile: B
Descriptors: circuit optimisation; echo suppression; FIR filters; least squares approximations; telephony; voice communication
Identifiers: echo shaping algorithm; acoustic echo control; hands-free telephony; FIR-filter; echo shaping filter; optimal least squares filter; echo attenuation; speech signal; background noise; comfort noise
Class Codes: B6210D (Telephony); B1270F (Digital filters); B6140 (Signal processing and detection)

8/9/3 (Item 3 from file: 2)
05722125 **INSPEC Abstract Number:** A9418-4350-003
Title: Narrow-band digital active noise reduction in a siren-cancelling headset: real-ear and acoustical manikin insertion loss
Author Casali, J.G.; Robinson, G.S.
Author Affiliation: Dept. of Ind. & Syst. Eng., Virginia Polytech. Inst. & State Univ., Blacksburg,

VA, USA
Journal: Noise Control Engineering Journal vol.42, no.3 p. 101-16

Publication Date: May-June 1994 **Country of Publication:** USA
CODEN: NCEJD5 **ISSN:** 0736-2501

Language: English **Document Type:** Journal Paper (JP)
Treatment: Practical (P); Experimental (X)
Abstract: Active noise cancellation (ANC) technology has become available for hearing protectors and communications headsets in efforts to augment their low-frequency passive attenuation performance. Several analog-electronics ANC earmuffs offer active attenuation of up to about 20 dB at frequencies less than 1000 Hz and rely on the muff's passive attenuation at higher frequencies. Such performance lends itself primarily to application in wideband, low-frequency biased noises. However, operators in more narrow-band noise threats may also benefit from a new approach to ANC-based hearing protection devices, i.e., that of the digital, supra-aural headphone. The design, testing, and application of digital ANC-based protectors (as contrasted with analog) are reviewed, and results of an attenuation experiment on a siren-cancelling headphone are presented. The insertion loss measurement scenario utilized one-third-octave, 30-s-average sound pressure levels measured by miniature microphones in real ears and on a KEMAR manikin. Temporally variant siren modes consisting of "wail," "yelp," and "hi-lo," were reproduced at representative wideband 30-s-average sound pressure levels of 90, 95, and 100 dB. There was generally close agreement between the real-ear and KEMAR insertion-loss data at midband frequencies from 500 to 6300 Hz. At the peak siren frequency of 800 Hz, mean real-ear attenuation ranged from 8 to 22 dB. At 4000 Hz and some higher frequencies, attenuations of 15 dB were found, but at the 100 dB levels for the Wail and Yelp signals, significant reductions in attenuation (from those measured at the lower siren levels) occurred as a consequence of a pre-programmed signal-level-limiting feature invoked when the siren-cancelling headset overloaded. The digital active-noise-control technology in the siren-cancelling headset offers potential for providing selective-frequency hearing protection against certain tonal noise hazards, with concomitant benefits to communications and user comfort of a lightweight, supra-aural headphone. (27 Refs)
Subfile: A
Descriptors: acoustic noise; acoustic signal processing; noise abatement; radiation protection
Identifiers: narrow-band digital active noise reduction; siren-cancelling headset; acoustical manikin insertion loss; active noise cancellation; hearing protectors; communications headsets; low-frequency passive attenuation; wideband low-frequency biased noises; KEMAR manikin; digital active-noise-control technology; selective-frequency hearing protection; tonal noise hazards
Class Codes: A4350 (Noise, its effects and control); A4360 (Acoustic signal processing); A8760P (Radiation protection)

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8/9/4 (Item 4 from file: 2)
05692868 **INSPEC Abstract Number:** A9415-4350-003, C9408-3120Z-001
Title: Near field zones of quiet
Author Joseph, P.; Elliott, S.J.; Nelson, P.A.
Author Affiliation: Inst. of Sound & Vibration Res., Southampton Univ., UK
Journal: Journal of Sound and Vibration vol.172, no.5 p. 605-27

Publication Date: 19 May 1994 **Country of Publication:** UK

CODEN: JSVIAG **ISSN:** 0022-460X
U.S. Copyright Clearance Center Code: 0022-460X/94/200605+23$08.00/0

Language: English **Document Type:** Journal Paper (JP)
Treatment: Theoretical (T); Experimental (X)
Abstract: This paper examines the consequences of driving a single secondary loudspeaker to cancel the pressure due to some primary source at a point in its near field. This simple technique has been applied to the sound field in a highly reverberant room to produce zones of quiet in the vicinity of the loudspeaker, which have diameters that are typically equal to one-tenth of the acoustic wavelength, within which the sound pressure level is attenuated by at least 10 dB. The principal advantage gained with this strategy over other active techniques for controlling the sound field in rooms is that the sound pressure level well away from the control point is largely unaffected, an increase of only a small fraction of one dB being typical. Such a loudspeaker-microphone configuration could be located, for example, in the head rests of cars or aeroplanes, or indeed anywhere where the listener is seated for significant lengths of time and subjected to high ambient noise levels such that auditory comfort may be disturbed. Measurements are presented of the near field quiet zone in a reverberant room at frequencies well above the Schroeder frequency. These experimental findings, which represent a space averaged result over source position, indicate good agreement with the simple theory developed in this paper. It is demonstrated theoretically that the diameter of the quiet zone formed at any arbitrary point and direction in the near field of the loudspeaker is numerically proportional to the specific acoustic impedance at that point and direction. In general terms, the 10 dB quiet zone is observed to increase as the diameter of the secondary loudspeaker increases and the microphone is moved increasingly further from the loudspeaker. Close to the loudspeaker the pressure due to the secondary source is predominantly governed by the directly radiated near field and so the quiet zone formed in this region is therefore insensitive to the nature of the primary sound field. This important feature makes it highly suitable for producing reductions in the sound pressure level within enclosed spaces at frequencies where the modal density is high such that global control strategies are rendered ineffective. (27 Refs)
Subfile: A C
Descriptors: acoustic field; acoustic impedance; acoustic signal processing; architectural acoustics; filtering and prediction theory; noise abatement; reverberation
Identifiers: single secondary loudspeaker; primary source; near field; sound field; highly reverberant room; zones of quiet; active techniques; loudspeaker-microphone configuration; cars; aeroplanes; near field quiet zone; Schroeder frequency; acoustic impedance; global control strategies; active noise control
Class Codes: A4350 (Noise, its effects and control); A4355 (Architectural acoustics); A4360 (Acoustic signal processing); C3120Z (Other nonelectric variables); C1260 (Information theory); C3395 (Other applications of control)

8/9/5 (Item 5 from file: 2)
03224827 **INSPEC Abstract Number:** B84021953
Title: Some factors affecting the performance of airline entertainment headsets
Author Gilman, S.
Author Affiliation: Univ. of California Los Angeles, School of Medicine, Audiology Res. Lab., Los Angeles, CA, USA
Journal: Journal of the Audio Engineering Society vol.31, no.12 p. 914-20

Publication Date: Dec. 1983 **Country of Publication:** USA
CODEN: ADIOA3 **ISSN:** 0004-7554

Language: English **Document Type:** Journal Paper (JP)
Treatment: Practical (P); Experimental (X)
Abstract: Results of tests of several airline entertainment system headsets on a manikin have shown response features for the headset and insert earpieces (tips) that can substantially affect both a passenger's comfort and the perception of the sound quality. In addition, the ability of the tips to attenuate cabin noise can influence both the intelligibility of speech on sound tracks and the extent to which the sound pressure level necessary for an acceptable signal-to-noise ratio may exceed a safe upper limit. Effects of design differences are described and suggestions are made for improving performance and listener acceptance. (12 Refs)
Subfile: B
Descriptors: headphones; sound reproduction
Identifiers: airline entertainment headsets; response features; insert earpieces; sound quality; cabin noise; sound pressure level; signal-to-noise ratio
Class Codes: B6450D (Audio recording media and techniques)

8/9/6 (Item 6 from file: 2)
0000462093 **INSPEC Abstract Number:** 1957A04091
Title: Speech communications in noise: Some equipment problems
Author Hawley, M.E.
Journal: Journal of the Acoustical Society of America 28 6 p. 1256-1260

Publication Date: Nov. 1956 **Country of Publication:** USA

Language: English **Document Type:** Journal Paper (JP)
Abstract: The design of a speech communication system begins with an operations analysis of the communication problem. When speech has been chosen as the means and when the needed linkages have been determined, the designer chooses the best compromises among the frequently conflicting factors of intelligibility, safety, comfort, quality, reliability and economy. It is particularly important to provide good quality as well as adequate intelligibility. The latter may be predicted with reasonable accuracy if the noise and signal levels and the transfer characteristics throughout the system are known. Pressure gradient microphones, especially with noise shields, noise attenuating earcaps, and earplugs, are the primary acoustical devices that can be used to obtain high intelligiblity through improvement of signal-to-noise ratios. If the listeners are in intense noise, headsets presently pose the major systems limitation. Automatic volume control and peak clipping are the audio techniques most frequently used to complement the transducers. Typical values and limitations for these kinds of processing are given. Optimum results can be obtained only if the whole system is designed together.
Subfile: A
Descriptors: speech
Identifiers: speech
Class Codes: A8736 (Speech and biocommunications); A4370 (Speech communication); A8734 (Audition)

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8/9/7 (Item 1 from file: 6) 1513960 **NTIS Accession Number:** PB90-229741
Improved Hearing Protection in a Mining Environment
(Final rept)
Best, C. F. ; Coleman, G. J. ; Graveling, R. A. ; Simpson, G. C. ; Talbot, C. F.
Institute of Occupational Medicine, Edinburgh (Scotland).
Corporate Source Codes: 076778000
Report Number: TM/89/09
Jun 89 73p
Language: English
Journal Announcement: GRAI9017
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NTIS Prices: PC E07/MF E07
Country of Publication: United Kingdom
Conventional hearing protectors, while adequate for basic hearing conservation in mine operations are less than ideal in terms of related requirements such as signal audibility and comfort/acceptability. A design specification for a hearing protector ideally suited to mineworkers requirements was produced from general guidelines developed in a previous project and initial studies in this project covering comfort and acceptability. The crucial element in the design specification, which is not achieved in any conventional protector was a flat frequency response within the range 15dB-18dB attenuation. Three methods of achieving the required attenuation performance were investigated: passive non-linear, electronic non-linear and active noise reduction. An existing, commercially available, passive non-linear hearing protector was found to have an attenuation profile close to that required and was selected as the passive option. An electronic non-linear hearing protector which had been developed under a previous ECSC project was selected, with modification to the attenuation profile, as the second option.
Descriptors: *Coal mining; *Ear protectors; Auditory defects; Safety engineering; Ear; Attenuation; Noise reduction; Attenuators; Protective clothing; Noise(Sound); Frequencies
Identifiers: *Foreign technology; *Health hazards; NTISDFMBR
Section Headings: 48A (Natural Resources and Earth Sciences--Mineral Industries); 95G (Biomedical Technology and Human Factors Engineering--Protective Equipment) ; 57U (Medicine and Biology--Public Health and Industrial Medicine)

8/9/8 (Item 1 from file: 8)
09820852 **E.I. No:** EIP04178133343
Title: Hearing protection devices: Issues on selection

Author: Arezes, P.M.; Miguel, A.S.R.
Corporate Source: Dept. of Production Campus de Azurem University of Minho, P - 4800 Guimaraes, Portugal
Conference Title: Proceedings of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Association, 'Ergonomics for the New Millennnium'
Conference Location: San Diego, CA, United States **Conference Date:** 20000729-20000804

E.I. Conference No.: 62639
Source: Proceedings of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Association, 'Ergonomics for the New Millennium' 2000.
Publication Year: 2000
Language: English
Document Type: CA; (Conference Article) **Treatment:** T; (Theoretical)
Journal Announcement: 0405W1
Abstract: Although hearing protection devices (HPD) should be used as a temporary solution, their selection shouldn't be neglected. Some ergonomics features associated with this kind of protective device must be taken into account. The present study aims at analyzing the relationship between the efficiency and the ergonomics aspects related to the comfort afforded by a personal hearing protector when used in industrial noisy environments. Results obtained seem to demonstrate that there are significant differences between catalogued and effective attenuation. Finally, we must emphasize that the former goal can only be achieved through the attainment of an adequate balance between the range of parameters likely to determine HPD usage. Moreover, it is important to consider the role played by the workers, namely their attitude towards the use of hearing protection, which will ultimately determine the overall success of any hearing conservation program. 9 Refs.
Descriptors: *Hearing aids; Ergonomics; Audition; Acoustic noise; Attenuation; Noise abatement; Signal detection; Education; Data acquisition; Microphones; Correlation methods
Identifiers: Hearing protection devices (HPD); Comfort indices (CI)
Classification Codes:
461.5 (Human Rehabilitation Engineering); 752.1 (Acoustic Devices); 461.4 (Human Engineering); 941.1 (Acoustical Instruments); 751.4 (Acoustic Noise); 751.1 (Acoustic Waves); 716.1 (Information & Communication Theory); 901.2 (Education); 723.2 (Data Processing); 922.2 (Mathematical Statistics)
461 (Bioengineering); 752 (Sound Devices, Equipment & Systems); 941 (Acoustical & Optical Measuring Instruments); 751 (Acoustics, Noise & Sound); 716 (Electronic Equipment, Radar, Radio & Television); 901 (Engineering Profession); 723 (Computer Software, Data Handling & Applications); 922 (Statistical Methods)
46 (BIOENGINEERING); 75 (SOUND & ACOUSTICAL TECHNOLOGY); 94 (INSTRUMENTS & MEASUREMENT); 71 (ELECTRONICS & COMMUNICATION ENGINEERING); 90 (ENGINEERING, GENERAL); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

8/9/9 (Item 2 from file: 8)
08430036 **E.I. No:** EIP99114927395
Title: Attenuation correction for PET using count-limited transmission images reconstructed with median root prior

Author: Alenius, S.; Ruotsalainen, U.; Astola, J.
Corporate Source: Tampere Univ of Technology, Tampere, Finl
Conference Title: Proceedings of the 1998 Medical Imaging Conference (MIC)
Conference Location: Toronto, Ont, Can **Conference Date:** 19981112-19981114
E.I. Conference No.: 55638
Source: IEEE Transactions on Nuclear Science v 46 n 3 II 1999. p 646-651

Publication Year: 1999
CODEN: IETNAE **ISSN:** 0018-9499
Language: English
Document Type: JA; (Journal Article) **Treatment:** A; (Applications); T; (Theoretical)
Journal Announcement: 0001W3
Abstract: Quantitative PET studies require the computation of the attenuation correction factors (ACF) for compensating the body attenuation effect in the emission data. Short acquisition times for transmission are desired, because of patient comfort and movement elimination. In practice, long acquisition times are used due to the statistical noise of count-limited scans. In order to reduce the noise, the median root prior (MRP) iterative reconstruction method was used for reconstruction of short acquisition time transmission images. Using these images, the ACFs were generated for correction of emission data. The new approach allows for scan times of 2 min or less, which is desirable for quantitative whole body PET studies. The new method is object independent and robust, because no smoothing of scan data or segmentation of the image are used. (Author abstract) 17 Refs.
Descriptors: *Positron emission tomography; Image reconstruction; Image enhancement; Attenuation; Computational methods; Motion compensation; Spurious signal noise; Iterative methods; Image segmentation; Algorithms
Identifiers: Attenuation correction; Count limited transmission images; Median root prior; Iterative reconstruction method; Maximum likelihood expectation maximization
Classification Codes:
461.1 (Biomedical Engineering); 741.1 (Light/Optics); 921.6 (Numerical Methods); 701.1 (Electricity: Basic Concepts & Phenomena)
461 (Biotechnology); 741 (Optics & Optical Devices); 921 (Applied Mathematics); 701 (Electricity & Magnetism)
46 (BIOENGINEERING); 74 (OPTICAL TECHNOLOGY); 92 (ENGINEERING MATHEMATICS); 70 (ELECTRICAL ENGINEERING)

8/9/10 (Item 3 from file: 8)
07241842 **E.I. No:** EIP95092843592
Title: Hybrid attenuation correction technique to compensate for lung density in 3D total body PET

Author: Tai, Y.-C.; Lin, K.-P.; Dahlbom, M.; Huang, S.-C.; Hoffman, E.J.
Corporate Source: UCLA Sch of Medicine, Los Angeles, CA, USA
Conference Title: Proceedings of the 1994 Nuclear Science Symposium and Medical Imaging Conference. Part 4 (of 4)
Conference Location: Norfolk, VA, USA **Conference Date:** 19941030-19941105
E.I. Conference No.: 43495
Source: IEEE Nuclear Science Symposium & Medical Imaging Conference v 4 1995. IEEE, Piscataway, NJ, USA,94CH35762. p 1643-1647
Publication Year: 1995
CODEN: 85OQAD
Language: English
Document Type: CA; (Conference Article) **Treatment:** A; (Applications); T; (Theoretical)
Journal Announcement: 9510W5
Abstract: A hybrid attenuation correction technique (ACT) has been developed for **1**8F-FDG Total Body Positron Emission Tomography (PET). With a short transmission scan of the thorax, any

time within a few days of the isotope injection, it can correct for attenuation in the entire body. Segmentation, registration, and active contour finding techniques are applied to both emission and short transmission images to locate and map the major attenuating structures in the body. This technique eliminates the need for patient to remain still from the start of the transmission scan to the end of the emission scan without the added noise of simultaneous or post transmission scan measurements. The results of volunteer studies are comparable to standard measured ACT, both visually and quantitatively. Efficient use of scanner and maximum comfort for patients make it a highly desirable technique for clinical imaging. (Author abstract) 11 Refs.
Descriptors: *Positron emission tomography; Image processing; Three dimensional; Tissue; Image segmentation; Scanning; Spurious signal noise; Medical imaging; Fuzzy sets; Algorithms
Identifiers: Hybrid attenuation correction technique; Pixels; Thorax; Isotope injection; Attenuation correction factors; Thresholding; Fuzzy thresholding algorithms ; Image volume
Classification Codes:
461.1 (Biomedical Engineering); 723.2 (Data Processing); 461.2 (Biological Materials); 716.1 (Information & Communication Theory); 921.4 (Combinatorial Mathematics, Includes Graph Theory, Set Theory)
461 (Biotechnology); 723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 921 (Applied Mathematics)
46 (BIOENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 92 (ENGINEERING MATHEMATICS)

8/9/11 (Item 4 from file: 8)
06917070 **E.I. No:** EIP94081360491
Title: Narrow-band digital active noise reduction in a siren-cancelling headset: Real-ear and acoustical manikin insertion loss

Author: Casali, John G.; Robinson, Gary S.
Corporate Source: Virginia Polytechnic Inst and State Univ, Blacksburg, VA, USA
Source: Noise Control Engineering Journal v 42 n 3 May-Jun 1994. p 101-115
Publication Year: 1994
CODEN: NCEJD5 **ISSN:** 0736-2501
Language: English
Document Type: JA; (Journal Article) **Treatment:** A; (Applications); X; (Experimental)
Journal Announcement: 9409W5
Abstract: Active noise cancellation (ANC) technology has become available for hearing protectors and communications headsets in efforts to augment their low-frequency passive attenuation performance. Several analog-electronics ANC earmuffs offer active attenuation of up to about 20 dB at frequencies less than 1000 Hz and rely on the muff's passive attenuation at higher frequencies. Such performance lends itself primarily to application in wideband, low-frequency biased noises. However, operators in more narrow-band noise threats may also benefit from a new approach to ANC-based hearing protection devices, i.e., that of the digital, supra-aural headphone. The design, testing, and application of digital ANC-based protectors (as contrasted with analog) are reviewed, and results of an attenuation experiment on a siren-cancelling headphone are presented. The insertion loss measurement scenario utilized one-third-octave, 30-s-average sound pressure levels measured by miniature microphones in real ears and on a KEMAR manikin. Temporally variant siren modes consisting of ?wail,' ?yelp,' and ? hi-lo,' were reproduced at representative wideband 30-s-average sound pressure levels of 90, 95, and

100 dB. There was generally close agreement between the real-ear and KEMAR insertion-loss data at midband frequencies from 500 to 6300 Hz. At the peak siren frequency of 800 Hz, mean real-ear attenuation ranged from 8 to 22 dB. At 4000 Hz and some higher frequencies, attenuations of 15 dB were found, but at the 100 dB levels for the Wail and Yelp signals, significant reductions in attenuation (from those measured at the lower siren levels) occurred as a consequence of a pre-programmed signal-level-limiting feature invoked when the siren-cancelling headset overloaded. The digital active-noise-control technology in the siren-cancelling headset offers potential for providing selective-frequency hearing protection against certain tonal noise hazards, with concomitant benefits to communications and user comfort of a lightweight, supra-aural headphone. (Author abstract) 27 Refs.
Descriptors: *Noise abatement; Digital filters; Active filters; Sirens; Headphones; Ear protectors; Linear control systems; Acoustic variables control; Acoustic signal processing; Attenuation
Identifiers: Siren cancelling headset; Narrow band digital active noise reduction; Acoustical manikin KEMAR; Insertion loss; Sound pressure; Supra aural headphones
Classification Codes:
751.4 (Acoustic Noise); 703.2 (Electric Filters); 752.4 (Acoustic Generators); 752.1 (Acoustic Devices); 731.2 (Control System Applications); 731.3 (Specific Variables Control)
751 (Acoustics); 703 (Electric Circuits); 752 (Sound Equipment & Systems); 731 (Automatic Control Principles)
75 (ACOUSTICAL TECHNOLOGY); 70 (ELECTRICAL ENGINEERING); 73 (CONTROL ENGINEERING)

8/9/12 (Item 5 from file: 8)
04517849 **E.I. Monthly No:** EI8405043371 **E.I. Yearly No:** EI84057493
Title: SOME FACTORS AFFECTING THE PERFORMANCE OF AIRLINE ENTERTAINMENT HEADSETS.

Author: Gilman, Samuel
Corporate Source: Univ of California, Sch of Medicine, Audiology Research Lab, Los Angeles, Calif, USA
Source: Journal of the Audio Engineering Society v 31 n 12 Dec 1983 p 914-920
Publication Year: 1983
CODEN: ADIOA3 **ISSN:** 0004-7554
Language: ENGLISH
Journal Announcement: 8405
Abstract: Results of tests of several airline entertainment system headsets on a manikin have shown response features for the headset and insert earpieces (tips) that can substantially affect both a passenger's comfort and the perception of the sound quality. In addition, the ability of the tips to attenuate cabin noise can influence both the intelligibility of speech on sound tracks and the extent to which the sound pressure level necessary for an acceptable signal-to-noise ratio may exceed a safe upper limit. Effects of design differences are described and suggestions are made for improving performance and listener acceptance. 12 refs.
Descriptors: *HEADPHONES; AIRCRAFT--Auxiliary Equipment; SOUND REPRODUCTION
Identifiers: AIRLINE ENTERTAINMENT HEADSETS
Classification Codes:
752 (Sound Equipment & Systems); 652 (Aircraft)
75 (ACOUSTICAL TECHNOLOGY); 65 (AEROSPACE ENGINEERING)

8/9/13 (Item 6 from file: 8)
03833356 **E.I. Monthly No:** EI7907054381 **E.I. Yearly No:** EI79059281
Title: EVALUATION OF AN ACTIVE NOISE REDUCTION SYSTEM FOR USE WITH EAR DEFENDERS.

Author: Dorey, A. P.; Pelc, S. F.; Rawlinson, R. D.; Wheeler, P. D.
Corporate Source: Southampton Univ, Engl
Source: IEE Conference Publication n 162, Conf on Commun Equip and Syst, Birmingham, Engl, Apr 4-7 1978. Publ by IEE, London, Engl, 1978 p 374-377
Publication Year: 1978
CODEN: IECPB4
Language: ENGLISH
Journal Announcement: 7907
Abstract: In a high noise environment, conventional ear defenders are incapable of providing sufficient noise attenuation at low frequencies (below APPROX EQUALS 1 kHz). An active reduction system has been developed in which the acoustic noise field inside the ear defenders is detected using a miniature microphone and an antiphase signal is fed back to the communications telephone within the ear defender. The feedback loop also affects the communications signal which has to be compensated outside the loop. The use of active noise reduction in a laboratory trial simulating flight conditions has been shown to give encouraging objective and subjective results. The additional subjective comfort was noted by many subjects.
Descriptors: *NOISE ABATEMENT
Classification Codes:
751 (Acoustics)
75 (ACOUSTICAL TECHNOLOGY)

8/9/14 (Item 1 from file: 34)
03292396 **Genuine Article#:** NU310 **Number of References:** 0
(NO REFS KEYED)
NARROW-BAND DIGITAL ACTIVE NOISE-REDUCTION IN A SIREN-CANCELING HEADSET - REAL-EAR AND ACOUSTICAL MANNEQUIN INSERTION LOSS

Author: CASALI JG; ROBINSON GS
Corporate Source: VIRGINIA POLYTECH INST & STATE UNIV,DEPT IND & SYST ENGN,AUDITORY SYST LAB/BLACKSBURG//VA/24061
Journal: NOISE CONTROL ENGINEERING JOURNAL , 1994 , V 42 , N3 (MAY-JUN) , P 101-115
ISSN: 0736-2501
Language: ENGLISH **Document Type:** ARTICLE
Geographic Location: USA
Subfile: SciSearch; CC ENGI--Current Contents, Engineering, Technology & Applied Sciences

Journal Subject Category: ENGINEERING; ACOUSTICS

Abstract: Active noise cancellation (ANC) technology has become available for hearing protectors and communications headsets in efforts to augment their low-frequency passive attenuation performance. Several analog-electronics ANC earmuffs offer active attenuation of up to about 20 dB at frequencies less than 1000 Hz and rely on the muff's passive attenuation at higher frequencies. Such performance lends itself primarily to application in wideband, low-frequency biased noises. However, operators in more narrow-band noise threats may also benefit from a new approach to ANC-based hearing protection devices, i.e., that of the digital, supra-aural headphone. The design, testing, and application of digital ANC-based protectors (as contrasted with analog) are reviewed, and results of an attenuation experiment on a siren-cancelling headphone are presented. The insertion loss measurement scenario utilized one-third-octave, 30-s-average sound pressure levels measured by miniature microphones in real ears and on a KEMAR manikin. Temporally variant siren modes consisting of "wail," "yelp," and "hi-lo," were reproduced at representative wideband 30-s-average sound pressure levels of 90, 95, and 100 dB. There was generally close agreement between the real-ear and KEMAR insertion-loss data at midband frequencies from 500 to 6300 Hz. At the peak siren frequency of 800 Hz, mean real-ear attenuation ranged from 8 to 22 dB. At 4000 Hz and some higher frequencies, attenuations of 15 dB were found, but at the 100 dB levels for the Wail and Yelp signals, significant reductions in attenuation (from those measured at the lower siren levels) occurred as a consequence of a pre-programmed signal-level-limiting feature invoked when the siren-cancelling headset overloaded. The digital active-noise-control technology in the siren-cancelling headset offers potential for providing selective-frequency hearing protection against certain tonal noise hazards, with concomitant benefits to communications and user comfort of a lightweight, supra-aural headphone.